

IN THE CLAIMS

The following is a complete listing of the claims in this application, reflects all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims.

1. (Original) An image processing apparatus comprising:
a plurality of code converting units for executing coding and decoding of image data;
a plurality of request-source task units for requesting any of said plurality of code converting units to perform a code conversion of image data, the number of task units being greater than the number of code converting units and having priorities that depend on their respective tasks; and

an assigning unit for assigning one of said plurality of code converting units to a processing request from one of said plurality of request-source task units having a high priority and, if there is an idle code converting unit among the plurality of code converting units, assigning the idle code converting unit to a processing request from one of said plurality of request-source task units having a low priority.

2. (Original) The apparatus according to claim 1, wherein said code converting units have one-to-one correspondence to the request-source task units having the high priority; and

said assigning unit assigns the corresponding code processing units in accordance with the processing requests from the request-source task units having the high priority.

3. (Currently Amended) The apparatus according to claim 1 ~~or~~ 2, wherein code converting units, the number of which is smaller than the number of the request-source task units having the low priority, correspond to these request-source task units having the low priority; and

said assigning unit assigns said code converting units in a prescribed order to the processing requests from the request-source task units having the low priority.

4. (Original) The apparatus according to claim 3, wherein said code converting units are constituted by software-implemented code converting units for executing code conversion by software and hardware-implemented code converting units for executing code conversion by hardware; and

said assigning unit assigns said software-implemented code converting units to the processing requests of the request-source task units.

5. (Original) The apparatus according to claim 4, wherein said request-source task units having the high priority are classified into a first unit group processed by said software-implemented code converting units and a second unit group processed by said hardware-implemented code converting units via said software-implemented code converting units.

6. (Original) The apparatus according to claim 5, wherein said hardware-implemented code converting units are adapted so as to be used jointly by the request-source task units of said second unit group.

7. (Original) An image processing method comprising:

a processing-request issuing step of issuing a processing request to a code converting unit by any request-source task unit of a plurality of request-source task units the number of which is greater than the number of a plurality of code converting units and having priorities that depend on their respective tasks, said code converting units executing coding and decoding of image data;

a priority processing determination step of receiving the processing request and determining whether the processing request issued by the request-source task unit should be processed with priority; and

an assigning step of assigning one of said plurality of code converting units to a processing request from one of said plurality of request-source task units determined to have a high priority and, if there is an idle node processing unit among the code converting units, assigning the idle code processing unit to a processing request from one of said plurality of request-source task units determined to have a low priority.

8. (Original) The method according to claim 7, wherein said code

converting units have one-to-one correspondence to the request-source task units having the high priority; and

said assigning step assigns the corresponding code processing units in accordance with the processing requests from the request-source task units having the high priority.

9. (Currently Amended) The method according to claim 7 ~~or 8~~, wherein

code converting units, the number of which is smaller than the number of the request-source

task units having the low priority, correspond to these request-source task units having the low priority; and

said assigning step assigns said code converting units in a prescribed order to the processing requests from the request-source task units having the low priority.

10. (Original) The method according to claim 9, wherein said code converting units are constituted by software-implemented code converting units for executing code conversion by software and hardware-implemented code converting units for executing code conversion by hardware; and

said assigning step assigns said software-implemented code converting units to the processing requests of the request-source task units.

11. (Original) The method according to claim 10, wherein said request-source task units having the high priority are classified into a first unit group processed by said software-implemented code converting units and a second unit group processed by said hardware-implemented code converting units via said software-implemented code converting units.

12. (Original) The method according to claim 11, wherein said hardware-implemented code converting units are adapted so as to be used jointly by the request-source task units of said second unit group.

13. (Original) An image processing program comprising:
program code for executing a processing-request issuing step of

issuing a processing request to a code converting unit by any request-source task unit of a plurality of request-source task units the number of which is greater than the number of a plurality of code converting units and having priorities that depend on their respective tasks, said code converting units executing coding and decoding of image data;

program code for executing a priority processing determination step of receiving the processing request and determining whether the processing request issued by the request-source task unit should be processed with priority; and

program code for executing an assigning step of assigning one of said code converting units to a processing request from one of said plurality of request-source task units determined to have a high priority and, if there is an idle code processing unit among the code converting units, assigning the idle code processing unit to a processing request from one of said plurality of request-source task units determined to have a low priority.

14. (Original) The program according to claim 13, wherein said code converting units have one-to-one correspondence to the request-source task units having the high priority; and

the program code for executing said assigning step includes code for assigning the corresponding code processing units in accordance with the processing requests from the request-source task units having the high priority.

15. (Currently Amended) The program according to claim 7 ~~or 8~~ wherein code converting units, the number of which is smaller than the number of the request-source task units having the low priority, correspond to these request-source task units having the

low priority; and

the program code for executing said assigning step includes code for assigning said code converting units in a prescribed order to the processing requests from the request-source task units having the low priority.

16. (Original) The program according to claim 15, wherein said code converting units are constituted by software-implemented code converting units for executing code conversion by software and hardware-implemented code converting units for executing code conversion by hardware; and

the program code for executing said assigning step includes code for assigning said software-implemented code converting units to the processing requests of the request-source task units.

17. (Original) The program according to claim 16, wherein said request-source task units having the high priority are classified into a first unit group processed by said software-implemented code converting units and a second unit group processed by said hardware-implemented code converting units via said software-implemented code converting units.